

REMARKS

Applicant thanks the Examiner for considering the references cited with the Information Disclosure Statement filed February 15, 2006.

Applicant also thanks the Examiner for acknowledging the claim for priority under 35 U.S.C. § 119 and receipt of a certified copy of the priority document.

Objections to the Claims

Claims 1 and 4-8 have been objected to for various informalities. Applicant submits that amendments to claims 1 and 4-8 correct the noted informalities.

Applicant respectfully requests that the objections to the claims be withdrawn.

Claim Rejections

Claims 1-3 --- 35 U.S.C. § 103(a)

Claims 1-3 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Pat. Pub. No. 2003/0076758 to Nakamura *et al.* ("Nakamura") in view of U.S. Pat. Pub. No. 2002/0041553 to Saga *et al.* ("Saga"). Applicant has amended claim 1 and submits that the amended claim would not have been rendered obvious by the cited references.

Addressing claim 1, the combination of Nakamura and Saga does not disclose or suggest at least said prepit forming regions having a fixed length which is three or less tracks long along said radial direction and being disposed not adjacent to one another in said radial direction, as recited in the claim. The Examiner concedes that Nakamura fails to disclose or suggest at least the above-noted features. The Examiner alleges, however, that in combination with the disclosure of Saga, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the combined disclosure resulting in the above-noted claimed features. Applicant respectfully disagrees.

In Fig. 1 of Nakamura, the prepit forming regions 111 are aligned with one another in a radial direction. In order to obtain the addition signal and the subtraction signal shown in Fig. 9, the spaces 1105 and prepits 1104 must be respectively aligned in the radial direction. This contradicts the configuration of "said prepit forming regions (111 in Fig. 10) having a fixed length which is three or less tracks long along said radial direction" as recited in the claim. Therefore, Nakamura cannot obtain the advantage of the reduction in cross-talk is achieved by exemplary embodiments of the present invention.

Saga does not cure the deficiencies of Nakamura. Saga merely discloses *dimensions between prepits constituting a pattern* formed in an identification information portion of the optical recording medium track. See paragraph [0051]. Hence, Saga does not provide the disclosure missing in Nakamura. Other cited references are similar to Nakamura.

Yamagami discloses that fine clock marks (FCK) are embedded in a part of the wobble. As shown in Fig. 7, eight servo segments are provided for one track, and the FCKs are embedded periodically in the servo signal as shown in Fig. 8. This configuration inevitably results in alignment of the FCKs in the radial direction. Even if the FCKs may be designed not to align with one another by adjusting the linear density in the tracks, the FCKs in the adjacent tracks generate crosstalk therebetween without using the specific consideration employed in exemplary embodiments of the present invention.

In view of the above, one of ordinary skill in the art at the time the invention was made would not have been motivated to combine the references as attempted by the Examiner, since the combined references would still not disclose or suggest all the claimed features.

Claim 1 is therefore patentable over the combined references. Claims 2 and 3 are patentable at least by virtue of their dependence.

Claims 4-9 — 35 U.S.C. § 103(a)

Claims 4-9 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Nakamura in view of Saga, and further in view of U.S. Pat. No. 6,256,282 to Yamagami *et al.* ("Yamagami") and U.S. Pat. Pub. No. 2003/0053403 to Miyamoto *et al.* ("Miyamoto"). Applicant traverses this rejection.

The combination of Nakamura, Saga, Yamagami and Miyamoto does not disclose or suggest at least the above-noted features of claim 1 which are incorporated into claims 4-9 by virtue of their dependence. As established above, the combination of Nakamura and Saga fails to disclose or suggest these features. Yamagami and Miyamoto, either alone or in combination, do not disclose or suggest the features missing in the Nakamura-Saga combination.

Yamagami is directed to optimizing the amplitude of track wobbling, while Miyamoto discloses shifting of information recording unit regions as well as identification or address data of adjacent plural tracks on a recording medium. However, neither Yamagami nor Miyamoto, alone or in combination, disclose or suggest the above-noted features deficient in the combination of Nakamura and Saga.

Since the combination of Nakamura, Saga, Yamagami and Miyamoto does not disclose or suggest all of the features claimed by Applicant, one of ordinary skill in the art at the time the

invention was made would not have been motivated to combine the references as attempted by the Examiner.

Accordingly, claims 4-9 are patentable over the combination of Nakamura, Saga, Yamagami and Miyamoto.

Further, as regards claims 5 and 6, Applicant respectfully submits that the Examiner's interpretation of the terms "deforming" and "disconnection" is incorrect. The Examiner states that wobble of the pre-groove in Yamagami corresponds to "deforming." However, if the groove is wobbled in the entire track and has a specific shape in a part of the track, then having a specific shape in a part is referred to by one of ordinary skill in the art as "deform."

Also, the Examiner interprets the structure wherein the right and left side walls of the groove are formed by a cutting apparatus as "disconnection." However, even if the walls of the groove are formed by the cutting apparatus, only a single groove can be formed and thus the groove is not subject to disconnection.

In addition, the Examiner cites Yamagami against claim 9. However, in Yamagami the FCKs are aligned with one another in the radial direction, which is different from the intermittently disposed prepit forming regions as recited in the claim.

Accordingly, claims 5, 6 and 9 are patentable over the cited references for at least these additional reasons.

Claims 10-17 --- 35 U.S.C. § 103(a)

Claims 10-17 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Nakamura in view of Saga, Yamagami and Miyamoto, and further in view of U.S. Pat. Pub. No. 2002/0136134 to Ito *et al.* ("Ito"). Claim 11 has been amended to correct a

typographical error. Applicant submits that this amendment is nonlimiting in nature and therefore does not implicate an estoppel. Applicant has amended claim 1 and submits that the amended claim would not have been rendered obvious by the cited references. Applicant traverses this rejection.

The combination of Nakamura, Saga, Yamagami, Miyamoto and Ito does not disclose or suggest at least the above-noted features incorporated into the claims by virtue of their dependence from claim 1. As established above, the combination of Nakamura, Saga, Yamagami and Miyamoto does not disclose or suggest these features. Ito does not provide the disclosure missing and the combination. Applicant notes that the Examiner has cited Ito only against claim 10.

The Examiner relies on Ito to allegedly disclose a wobble cycle in relation to a frame cycle. However, even if Ito provides such disclosure, Ito fails to disclose or suggest the above-noted features missing in the combination of Nakamura, Saga, Yamagami and Miyamoto.

Therefore, one of ordinary skill in the art at the time the invention was made would not have been motivated to combine the references as attempted by the Examiner, since the attempted combination does not disclose or suggest all the claimed features.

Accordingly, claims 10-17 are patentable over the combination of Nakamura, Saga, Yamagami, Miyamoto and Ito.

With further regard to claim 12, the Yamagami's FCKs are lined with one another in the radial direction. On the other hand, as claimed by Applicant, the physical address is provided based on the relative relationship between the wobble phase and the prepit position, which is totally different from Yamagami.

Also, the Examiner cites Nakamura and Saga against claim 13 alleging that the prepit forming regions are covered by a long mark or a long space. However, Nakamura discloses that the prepit itself is formed by a 4Tw to 16Tw and thus does not teach that a mark or space is recorded on the prepit. Saga discloses a power control for recording a mark on the disk, but is silent as to the relationship of the mark with respect to the prepit.

Finally, claim 15 differs from Nakamura at least because Nakamura describes that an area used for recording/reproducing data is only the recording and reproduction portion 112 shown in Fig. 1. However, Nakamura does not disclose or suggest wherein the prepit forming region and the vicinity thereof are covered by a mark or space, as set forth in the claim.

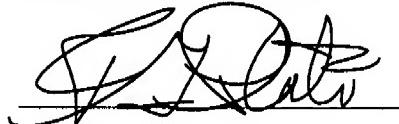
Accordingly, claims 12, 13 and 15 are patentable at least for these additional reasons.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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